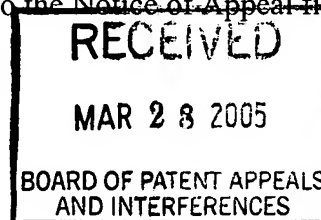


<b>TRANSMITTAL OF APPEAL BRIEF</b> <b>(Large Entity)</b>			Docket No. DP-309912 (71030-001)
In Re Application of: Kenneth James Bunker			
Serial No. 10/089, 011	Filing Date March 25, 2002	Examiner Matthew C. Graham	Group Art Unit 3683
Title: METHOD AND APPARATUS FOR CONTROLLING A BRAKING SYSTEM			

**TO THE COMMISSIONER FOR PATENTS:**

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on: February 1, 2005

The fee for filing this Appeal Brief is: \$500.00



- ☐ A check in the amount of the fee is enclosed
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 08-2789

*Signature*

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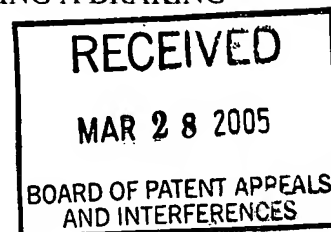
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Karri M. Chamberlin  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT: Kenneth James Bunker  
SERIAL NO: 10/089,011  
FILED: March 25, 2002  
FOR: METHOD AND APPARATUS FOR CONTROLLING A BRAKING  
SYSTEM  
EXAMINER: Matthew C. Graham



Board of Patent Appeals and Interferences  
United States Patent and Trademark Office  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

March 24, 2005

Sir:

**APPEAL BRIEF**

This brief is submitted in support of the Notice of Appeal of the Final Rejection filed February 1, 2005.

**(I) REAL PARTY IN INTEREST**

This application is assigned to Delphi Technologies, Inc.

**(II) RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to appellants, the appellants legal representative, or the assignee which will directly affect or be directly affected by or have a

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**CERTIFICATION OF MAILING**

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bearing on the Board's decision in the appending appeal.

### **(III) STATUS OF CLAIMS**

Claims 3, 4 and 14-16 are on appeal. The remaining claims have been cancelled.

### **(IV) STATUS OF AMENDMENTS**

An after-final amendment filed February 3, 2005 correcting the claim dependency of claim 4 was entered by the examiner in an Advisory Action dated March 15, 2005. No other amendments have been made.

### **(V) SUMMARY OF CLAIMED SUBJECT MATTER**

Apparatus and method for controlling an automotive braking system is provided having front and back brakes and with the front brakes including a pair of rotatable wheel hubs, at least two spot-type brake discs mounted on each of the wheel hubs and supported for rotation with the wheel hubs and for axially sliding movement on the wheel hubs and with each disc presenting opposite circumferentially continuous annular braking surfaces. At least three spot-type friction elements are mounted on a stationary brake caliper associated with each wheel hub and interleaved with the associated brake discs. The friction elements are circumferentially discontinuous so as to overly only an angular sector of the annular braking surfaces of the brake discs. At least two of the friction elements are axially slidable on the caliper for engaging and disengaging the braking surfaces of the brake disc. The method further includes controlling the attitude and movement of the brake discs with respect to the wheel hub, and also controlling the attitude and movement of the friction elements with respect to the caliper to maintain the brake disc and friction elements in parallel alignment

during sliding movement into and out of braking engagement with one another .

In connection with the rejection, it is important to note that the claimed invention calls for at least a pair of brake discs which slide on the hub. As explained more fully below, Carre et. al. does not teach or suggest this dual sliding disc arrangement and renders the examiner's rejection unsupportable.

#### **(VI) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 14-16 stand rejected under 35 U.S.C. 102(b) as being anticipated by Carre et. al.

#### **(VII) ARGUMENT**

Appellant respectfully disagrees with the rejection of claims 14 and 16 as being anticipated by U.S. Patent No. 4,784,244 to Carre et al (Carre, Attachment A). Each of claims 14 and 16 recites mounting at least a pair of brake discs on each of the front and back wheel hubs that are slidable axially on the hub. The examiner states that the cited Carre reference teaches multiple discs which are each slidable on the hub (see paragraph "8" of Final Rejection). However, such is not the case. While the inner disc 1a appears to slide axially relative to the outer disc 1b, the outer disc 1b is formed as part of or bolted to the wheel hub. In other words, it appears that the outer disc 1b is axially fixed to the wheel hub, while the inner disc 1a may slide. This does not meet the limitations of claims 14 and 16 which call for a pair of axially slidable brake discs.

Carre is able to accommodate the fixed outer disc 1b through axial sliding movement of the caliper structure which, in the first three lines of column 2, is described as being mounted slidably on a fixed support 3. In line 65 of column 1, Carre incorporates by

reference European patent EP0117192 (Attachment B) as describing in detail the general structure of the brake system apart from the inventive features disclosed in Carre. This reference appears to be no more relevant than that of Carre with respect to the claimed invention of the present application and thus it has not been separately listed on an invention disclosure form. Nonetheless, a copy of EP117192 is attached herewith along with an English translation of the abstract and claims where it is made clear that the caliper slides axially on the fixed support identified as numeral 9 in Figure 2 of the EP reference. Item 4 in Figure 2 of the EP reference is the wheel hub and it is shown as being formed as one piece with the outer disc, which is the same arrangement illustrated in the drawings of Carre. As such, the outer disc 1b does not appear to be constructed to slide axially relative to the wheel hub, but is stationary relative thereto. Additionally, the unnumbered bolt or fastener extending through wheel hub 4 appears to mount a support base for the apparent sliding movement of the inner disc relative to the support base, further supporting an interpretation that the wheel hub 4 and outer disc are axially fixed. It is respectfully submitted, therefore, that claims 14 and 16 are not anticipated by Carre since Carre lacks the requirement for dual sliding brake discs.

Claim 14 further requires the friction elements to be spot-type elements which are circumferentially discontinuous. It is not clear from the disclosure of Carre et. al whether the friction members 4a, 4b, and 4c are annular circumferentially continuous disc-type frictional elements, which would fail to meet the requirement of having the friction elements overly only an angular sector of the annular braking surfaces of the brake discs. This distinction was also raised in the last amendment and has not been addressed by the examiner.

Accordingly, it is respectfully submitted that the rejection of claims 14 and 16 based on Carre et. al. is improper and it is requested that this Board reverse the decision of the

examiner.

**(VIII) CLAIMS APPENDIX**

See attached Appendix C.

**(IX) EVIDENCE APPENDIX**

None.

**(X) RELATED PROCEEDINGS APPENDIX**

None.

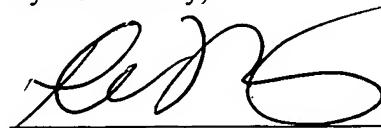
**(XI) CITED REFERENCES APPENDIX**

It is believed that all claims on appeal clearly are allowable over the prior art of record. Accordingly, reversal of the final rejection and the allowance of all claims on appeal are requested.

Respectfully submitted,

Kenneth James Bunker

By his attorney,



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